

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: LITTLE POND	Lake Area (ha): 7.69
Town: SANDWICH	Maximum depth (m): 8.2
County: Carroll	Mean depth (m): 3.6
River Basin: Merrimack	Volume (m ³): 267500
Latitude: 43°47'30" N	Relative depth: 2.7
Longitude: 71°24'15" W	Shore configuration: 1.03
Elevation (ft): 650	Areal water load (m/yr): 7.22
Shore length (m): 1000	Flushing rate (yr ⁻¹): 2.00
Watershed area (ha): 101.0	P retention coeff.: 0.60
% watershed ponded: 0.0	Lake type: natural w/dam

BIOLOGICAL:

7 February 1989

26 July 1988

DOM. PHYTOPLANKTON (% TOTAL) #1	DINOBYRON 90%	CERATIUM 45%
#2		
#3		
PHYTOPLANKTON ABUNDANCE (cells/mL)		1035.0
CHLOROPHYLL-A (µg/L)		4.92
DOM. ZOOPLANKTON (% TOTAL) #1	KERATELLA 29%	VORTICELLA 72%
#2	SYNCHAETA 22%	NAUPLIUS LARVA 10%
#3	BOSMINA 22%	KELLICOTTIA 8%
ROTIFERS/LITER	64	13
MICROCRUSTACEA/LITER	22	20
ZOOPLANKTON ABUNDANCE (#/L)	89	115
VASCULAR PLANT ABUNDANCE		Scattered
SECCHI DISK TRANSPARENCY (m)		4.4
BOTTOM DISSOLVED OXYGEN (mg/L)	4.0	1.1
BACTERIA (fecal col., #/100 ml) #1		
#2		
#3		

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m): 4.7
Hypolimnion volume (m³): None

CHEMICAL:

Lake: LITTLE POND

Town: SANDWICH

	7 February 1989		26 July 1988		
DEPTH (m)	2.5	5.0	2.5		5.0
pH (units)	6.8	6.7	6.7		6.5
A.N.C. (Alkalinity)	10.5	10.2	9.9		12.6
NITRATE NITROGEN	< 0.05	< 0.05			
TOTAL KJELDAHL NITROGEN	0.36	0.36	0.21		0.31
TOTAL PHOSPHORUS	0.009	0.014	0.007		0.015
CONDUCTIVITY (μ mhos/cm)	54.2	54.1	47.0		53.5
APPARENT COLOR (cpu)	9	11	13		18
MAGNESIUM			0.35		
CALCIUM			3.1		
SODIUM			4.8		
POTASSIUM			0.60		
CHLORIDE	7	7			
SULFATE	4	4			
TN : TP	40	26			
CALCITE SATURATION INDEX			3.1		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1988

D.O. S.D. PLANT CHL TOTAL CLASS

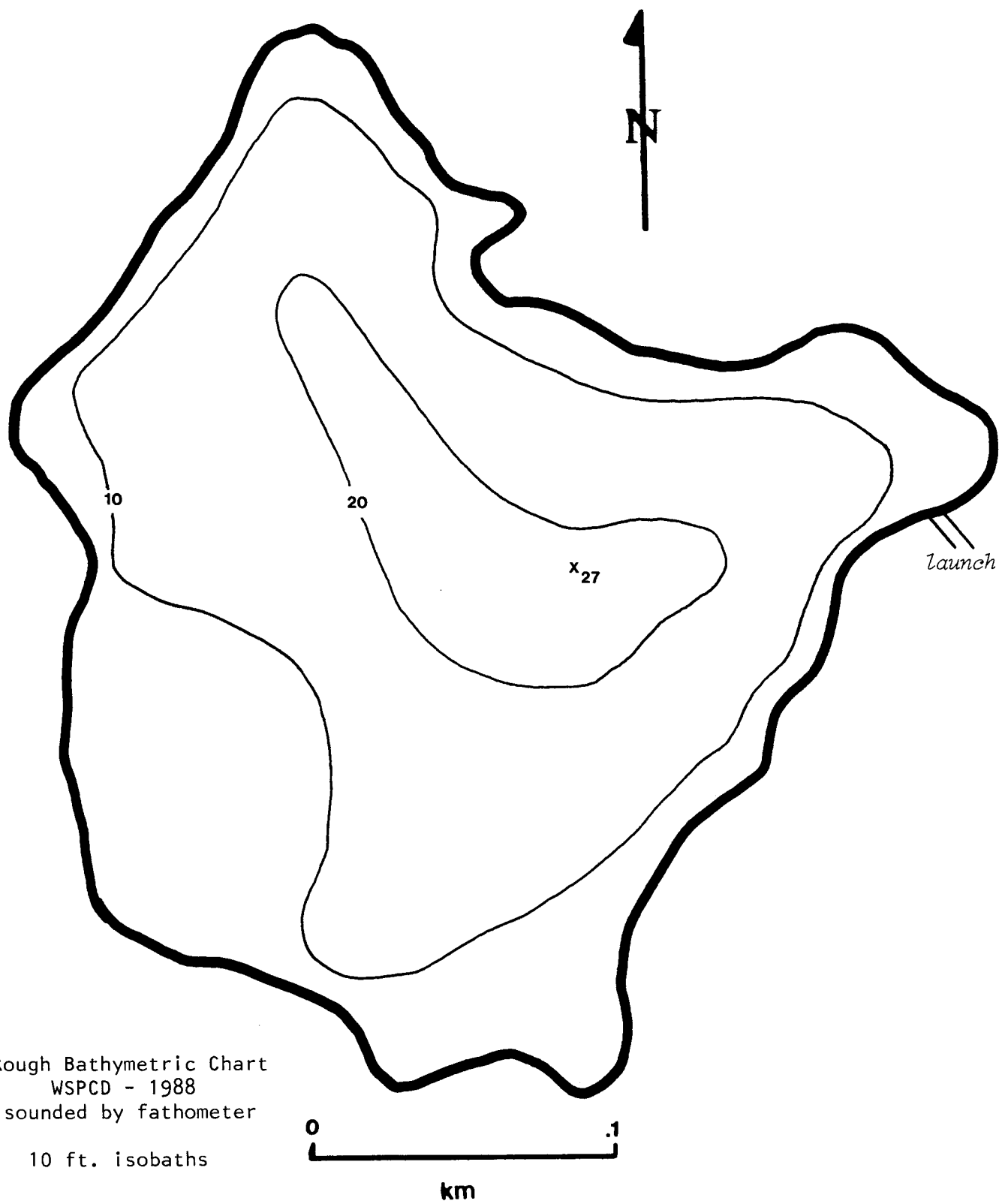
**	2	1	1	4	Oligo.
----	---	---	---	---	--------

COMMENTS:

1. Fathometer readings fluctuated 3 to 4 feet in the deeper areas, evidence of a soft, oozy bottom or plant growth (Chara) on the bottom.
2. All motor boats are restricted from the pond.
3. Good launch site was present.
4. The shoreline was mostly sandy or rocky.
5. Green algae (65%) and cryptomonads were the dominant classes of whole-water phytoplankton. The dominant genus was tiny green flagellates (40%).

LITTLE POND

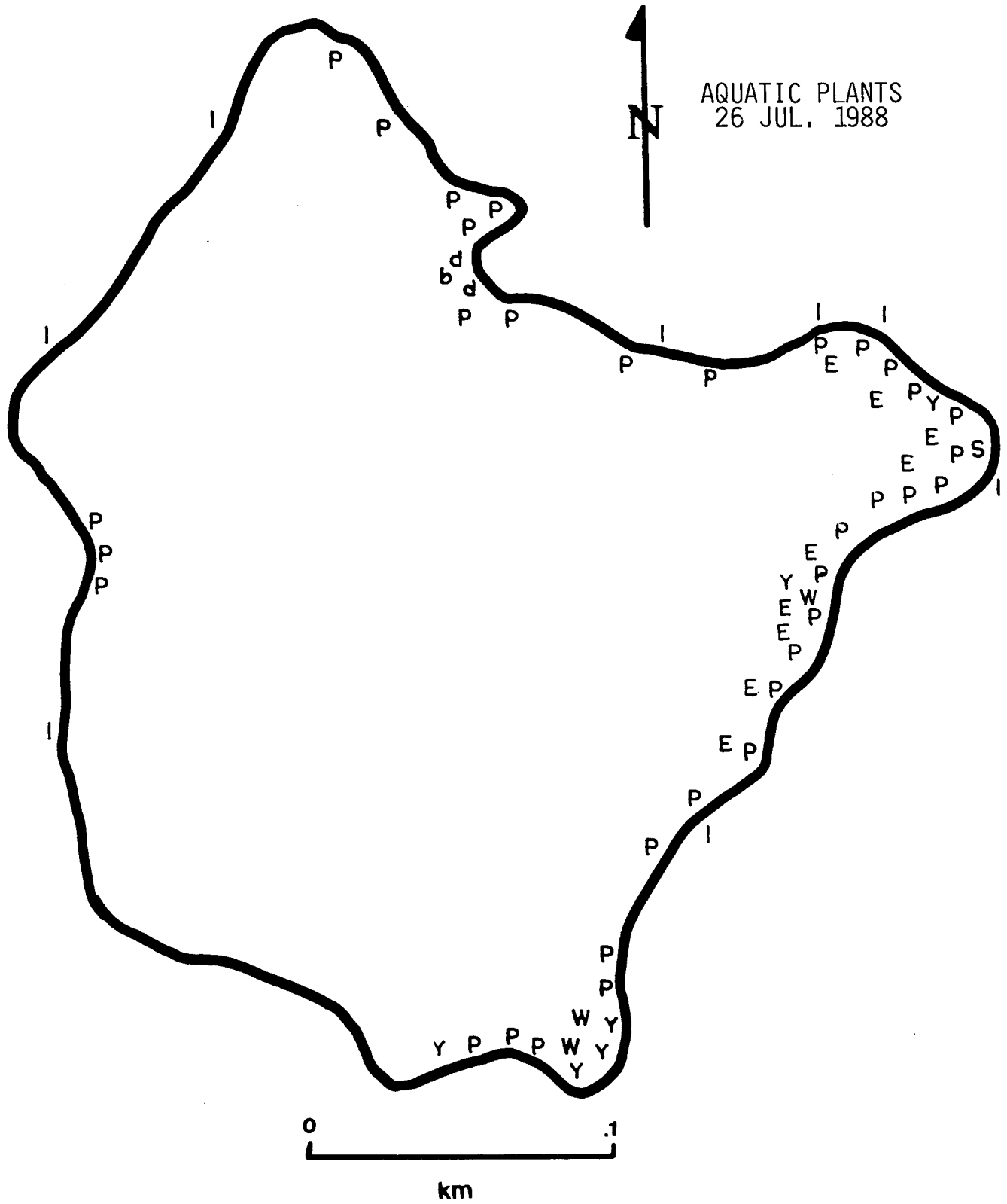
SANDWICH



[illegible]

LITTLE POND

SANDWICH



[illegible]